INDEX OF AUTHORS AND PAPERS

PHYSICA B

Agarwal, B.K., see Harsh, O.K. 150B (1988) 378
Alonso, J.A., see Lopez, J.M. 150B (1988) 369
Alp, E.E., Soderholm, L., Shenoy, G.K., Hinks, D.G., Veal, B.W. and Montano, P.A., Valence determination in high T_c oxide superconductors by XANES and Mössbauer spectroscopy 150B (1988) 74
Aragón, R., see Honig, J.M. 150B (1988) 129
Awadelkarim, O.O., Divacancies production in irradiated n-type silicon 150B (1988) 312

Bachlechner, M.E., Miesenboeck, H.M. and Macke, W., Contributions to the second order dielectric response of an electron liquid 150B (1988) 337
Bateman, C. and Notis, M., CAD representation of the systems ZrO_2–MgO–TiO_2 and ZrO_2–MgO–$YO_{1.5}$ 150B (1988) 122
Beale, P.D., see Scott, J.F. 150B (1988) 160
Block, R., see Fuchikami, N. 150B (1988) 285
Bominaar, E.L., see Fuchikami, N. 150B (1988) 285
Boyer, L.L., see Cohen, R.E. 150B (1988) 61
Boyer, L.L., see Cohen, R.E. 150B (1988) 1
Burton, B.P., see Kikuchi, R. 150B (1988) 132
Buschow, K.H.J., see Colinet, C. 150B (1988) 397
Butler, D., see Scott, J.F. 150B (1988) 160

Chan, S.-K., see Garvie, R.C. 150B (1988) 203
Chan, S.-K., The polymorphic transformations of zirconia 150B (1988) 212
Chan, S.-K., see Nevitt, M.V. 150B (1988) 230
Cheng, Z.M., see Wang, Y.L. 150B (1988) 168
Ching, W.Y., see Zandiehnadem, F. 150B (1988) 19
Ching, W.Y., see Xu, Y. 150B (1988) 32
Chou, W.C., Huang, W.J., Chu, P.Y., Han, C.S. and Chuu, D.S., The binding energy of hydrogenic impurity in quantum well structures 150B (1988) 361
Chu, P.Y., see Chou, W.C. 150B (1988) 361
Chuu, D.S., see Chou, W.C. 150B (1988) 361
Coble, R.L., see French, R.H. 150B (1988) 47
Cohen, R.E., Pickett, W.E., Krakauer, H. and Boyer, L.L., Applications of ionic models to the high-temperature superconductor La_2CuO_4 150B (1988) 61
Cohen, R.E., Mehl, M.J. and Boyer, L.L., Phase transitions and elasticity in zirconia 150B (1988) 1
Colinet, C., Pasturel, A. and Buschow, K.H.J., Cohesive properties in the Al–Gd system 150B (1988) 397
Crits, E., Van Gerven, L. and Emid, S., Dipolar polarization in a single crystal of lithium acetate measured by NMR dispersion spectroscopy 150B (1988) 329

Dai, X.-H., see Wang, Y.L. 150B (1988) 168
Dimmler, K., see Scott, J.F. 150B (1988) 160
Duiker, H.M., see Scott, J.F. 150B (1988) 160

Eaton, S., see Scott, J.F. 150B (1988) 160
Ebisu, S., see Nagata, S. 150B (1988) 423
Ellis, D.E. and Lam, D.J., Embedded cluster models for electronic structure and energetics of complex oxides 150B (1988) 25
Emid, S., see Crits, E. 150B (1988) 329
Evans, A.G., see Rühle, M. 150B (1988) 86

Faber Jr., J., High-temperature charge-density studies of CeO_{2-x} using X-ray and neutron diffraction techniques 150B (1988) 241
Fang, Y., see Nevitt, M.V. 150B (1988) 230
Freeman, A.J. and Yu, J., Electronic structure and high T_c superconductivity in transition metal oxides 150B (1988) 50
French, R.H., see Kasowski, R.V. 150B (1988) 44
French, R.H., Coble, R.L., Kasowski, R.V. and Ohuchi, F.S., Vacuum ultraviolet, photoemission and theoretical studies of the electronic structure of Al_2O_3 up to 1000 °C 150B (1988) 47
Fu, X.R., see Xu, Y.R. 150B (1988) 276
Fuchikami, N., Bominaar, E.L. and Block, R., Effect of Jahn–Teller distortion on the exchange interactions in $KCuF_3$. Two model studies 150B (1988) 285

Gallego, L.J., see Lopez, J.M. 150B (1988) 369
Gardner, J.A., Jaeger, H., Su, H.T., Warnes, W.H. and Haygarth, J.C., Zirconia dynamics studied by PAC spectroscopy 150B (1988) 223
Gardner, J.A., see Jansen, H.J.F. 150B (1988) 10
Garvie, R.C. and Chan, S.-K., Stability limits in the monoclinic–tetragonal transformations of zirconia 150B (1988) 203
Gaur, N.K., see Singh, R.K. 150B (1988) 385
Gordon, A., Dynamics of domain walls in hydrogen-bonded ferroelectrics 150B (1988) 319
Grimsditch, M., Experimental studies of elastic properties of crystals by Brillouin scattering 150B (1988) 271
Grimsditch, M.H., see Nevitt, M.V. 150B (1988) 230
Gupta, H.C., see Gupta, V.B. 150B (1988) 297
Gupta, V.B. and Gupta, H.C., Study of the interatomic forces in the A15 superconducting compounds 150B (1988) 297

Hammann, J., see Ocio, M. 150B (1988) 353
Han, C.S., see Chou, W.C. 150B (1988) 361
Hara, K., see Ishibashi, Y. 150B (1988) 258
Harsh, O.K. and Agarwal, B.K., Surface plasmon dispersion relation in the X-ray emission spectra of a semi-infinite rectangular metal bounded by a plane 150B (1988) 378
Haygarth, J.C., see Gardner, J.A. 150B (1988) 223
Hemley, R.J., see Jephcoat, A.P. 150B (1988) 115
Hinks, D.G., see Alp, E.E. 150B (1988) 74
Honig, J.M. and Aragón, R., A simple model of the electrical properties of magnetite 150B (1988) 129
Huang, W.J., see Chou, W.C. 150B (1988) 361

Ishibashi, Y., Hara, K. and Sawada, A., The ferroelastic transition in some scheelite-type crystals 150B (1988) 258

Jaeger, H., see Gardner, J.A. 150B (1988) 223
Jansen, H.J.F. and Gardner, J.A., Total energy calculations for ZrO_2 150B (1988) 10
Jephcoat, A.P., Hemley, R.J. and Mao, H.K., X-ray diffraction of ruby (Al_2O_3:Cr^{3+}) to 175 GPa 150B (1988) 115

Kasowski, R.V., Ohuchi, F.S. and French, R.H., Theoretical and experimental studies on Cu metallization of Al_2O_3 150B (1988) 44
Kasowski, R.V., see French, R.H. 150B (1988) 47
Kaufman, L., Calculation of multicomponent ceramic phase diagrams 150B (1988) 99
Kikuchi, R. and Burton, B.P., Calculation of phase diagrams of some oxide systems using the cluster variation method 150B (1988) 132
Kim, E.S., see Song, H.I. 150B (1988) 148
Kostić, P., Milosević, O., Uskoković, D. and Ristić, M.M., Potential barrier degradation at the grain boundary of ZnO-based nonlinear resistors 150B (1988) 175
Krakauer, H., see Cohen, R.E. 150B (1988) 61
Kuo, C.K. and Yan, Y.M., Equilibrium calculations in the gas participating multicomponent system 150B (1988) 142

Lam, D.J., see Ellis, D.E. 150B (1988) 25
Lawrence, A.J.A., see Rivier, N. 150B (1988) 190
Legnini, D.G., see Smedskjaer, L.C. 150B (1988) 56
Leyarovski, E., see Mrachkov, J. 150B (1988) 404
Liu, J.Z., see Nevitt, M.V. 150B (1988) 230
Liu, T.L., see Luh, S.W. 150B (1988) 324
Lopez, J.M., Alonso, J.A., Gallego, L.J. and Silbert, M., Construction of liquidus curves of simple-eutectic binary alloys from Miedema theory 150B (1988) 369
Luh, S.W. and Liu, T.L., Electronic structure of CeAg 150B (1988) 324

Ma, L.T., see Rühle, M. 150B (1988) 86
Macke, W., see Bachlechner, M.E. 150B (1988) 337
Mao, H.K., see Jephcoat, A.P. 150B (1988) 115
Mason, T.O., Electronic behavior and cationic defects in cubic transition metal oxides 150B (1988) 37
McKale, A.G., see Veal, B.W. 150B (1988) 234
Mehl, M.J., see Cohen, R.E. 150B (1988) 1
Miesenboeck, H.M., see Bachlechner, M.E. 150B (1988) 337
Milosević, O., see Kostić, P. 150B (1988) 175
Mishra, V., see Sanyal, S.P. 150B (1988) 346
Montano, P.A., see Alp, E.E. 150B (1988) 74
Mrachkov, J. and Leyarovski, E., Crystalline electric field effects in the magnetic properties of hexagonal praseodymium compounds 150B (1988) 404
Murray, R.A., see Zandiehnadem, F. 150B (1988) 19

Nagata, S., Ebisu, S. and Taniguchi, S., Modified version of ferromagnetic spin-wave excitations in the presence of a magnetic field 150B (1988) 423

Nevitt, M.V., Chan, S.-K., Liu, J.Z., Grimsditch, M.H. and Fang, Y., The elastic properties of monoclinic ZrO_2 150B (1988) 230
Notis, M., see Bateman, C. 150B (1988) 122
Nowicki, L.J., see Veal, B.W. 150B (1988) 234
Nowicki, L.J., see Smedskjaer, L.C. 150B (1988) 56

Ocio, M., Hammann, J., Regregier, Ph. and Vincent, E., Experimental investigation on the spin glass dynamics in $CdIn_{0.3}Cr_{1.7}S_4$ from noise measurements 150B (1988) 353
Ohuchi, F.S., see Kasowski, R.V. 150B (1988) 44
Ohuchi, F.S., see French, R.H. 150B (1988) 47

Park, J.-H., Thermodynamic and conductivity studies of nonstoichiometric cerium dioxide by coulometric titration: a simultaneous measurement 150B (1988) 80
Parris, M., see Scott, J.F. 150B (1988) 160
Pasturel, A., see Colinet, C. 150B (1988) 397
Paulikas, A.P., see Veal, B.W. 150B (1988) 234
Paulikas, A.P., see Smedskjaer, L.C. 150B (1988) 56
Pickett, W.E., see Cohen, R.E. 150B (1988) 61
Pouligny, B., see Scott, J.F. 150B (1988) 160

Rahman, A., see Ray, J.R. 150B (1988) 250
Rai, R., Theory of Jahn–Teller interaction in metallocenes. I. Cobaltocene and ferricenium cation 150B (1988) 414
Rai, R., Theory of Jahn–Teller interaction in metallocenes. II. Chromocene 150B (1988) 419
Ray, J.R. and Rahman, A., Molecular dynamics methods to study structural phase transformations in solids 150B (1988) 250
Regregier, Ph., see Ocio, M. 150B (1988) 353
Ristić, M.M., see Kostić, P. 150B (1988) 175
Rivier, N. and Lawrence, A.J.A., Quasicrystals at grain boundaries 150B (1988) 190
Rothman, S.J., see Veal, B.W. 150B (1988) 234
Rühle, M., Ma, L.T., Wunderlich, W. and Evans, A.G., TEM studies on phases and phase stabilities of zirconia ceramics 150B (1988) 86

Samara, G.A., Quantum effects and glasslike behavior in ferroelectric oxides 150B (1988) 179
Sanyal, S.P., Mishra, V. and Singh, R.K., Defect properties of divalent metal oxides 150B (1988) 346
Sawada, A., see Ishibashi, Y. 150B (1988) 258
Scott, J.F., Duiker, H.M., Beale, P.D., Pouligny, B., Dimmler, K., Parris, M., Butler, D. and Eaton, S., Properties of ceramic KNO_3 thin-film memories 150B (1988) 160
Shenoy, G.K., see Alp, E.E. 150B (1988) 74
Silbert, M., see Lopez, J.M. 150B (1988) 369
Singh, R.K., see Sanyal, S.P. 150B (1988) 346
Singh, R.K. and Gaur, N.K., Unified study of lattice mechanics of alkali cyanides 150B (1988) 385
Smedskjaer, L.C., Veal, B.W., Legnini, D.G., Paulikas, A.P. and Nowicki, L.J., Positron trapping in the superconductor $YBa_2Cu_3O_x$ 150B (1988) 56
Soderholm, L., see Alp, E.E. 150B (1988) 74
Song, H.I., Kim, E.S. and Yoon, K.H., Phase transformation and characteristics of beta-alumina 150B (1988) 148

Su, H.T., see Gardner, J.A. 150B (1988) 223
Sun, Y.-R., see Wang, Y.L. 150B (1988) 168

Taniguchi, S., see Nagata, S. 150B (1988) 423

Uskoković, D., see Kostić, P. 150B (1988) 175

Van Gerven, L., see Crits, E. 150B (1988) 329
Veal, B.W., McKale, A.G., Paulikas, A.P., Rothman, S.J. and Nowicki, L.J., EXAFS study of yttria stabilized cubic zirconia 150B (1988) 234
Veal, B.W., see Smedskjaer, L.C. 150B (1988) 56
Veal, B.W., see Alp, E.E. 150B (1988) 74
Vincent, E., see Ocio, M. 150B (1988) 353

Wang, Y.L., Cheng, Z.M., Sun, Y.-R. and Dai, X.-H., Phase transition study of PZT 95/5 ceramics 150B (1988) 168
Warnes, W.H., see Gardner, J.A. 150B (1988) 223
Wunderlich, W., see Rühle, M. 150B (1988) 86

Xu, Y. and Ching, W.Y., Comparison of charge density distribution and electronic bonding in α-SiO_2 and β-Si_3N_4 150B (1988) 32
Xu, Y.R., Fu, X.R. and Yan, D.S., Creep behavior of hot-pressed silicon nitride ceramics with rare-earth oxides and alumina additives 150B (1988) 276

Yagi, T., Light scattering studies of some glasses 150B (1988) 265
Yan, D.S., see Xu, Y.R. 150B (1988) 276
Yan, Y.M., see Kuo, C.K. 150B (1988) 142
Yoon, K.H., see Song, H.I. 150B (1988) 148
Yu, J., see Freeman, A.J. 150B (1988) 50

Zandiehnadem, F., Murray, R.A. and Ching, W.Y., Electronic structures of three phases of zirconium oxide 150B (1988) 19

PHYSICA C

Aravind, P.K. and Hu, G., Influence of initial conditions on squeezing and anti-bunching in the Jaynes–Cummings model 150C (1988) 427

Campos, J., see Ortiz, M. 150C (1988) 440

Ghumman, B.S., see Sekhon, G.S. 150C (1988) 473

Hu, G., see Aravind, P.K. 150C (1988) 427

Kadantseva, E.P., see Kien, F.L. 150C (1988) 445
Kien, F.L., Kadantseva, E.P. and Shumovsky, A.S., Light squeezing in the two-atom one-mode model with multi-phonon transitions 150C (1988) 445

Lerner, P.B. and Sokolov, I.M., Sound propagation in gas mixtures 150C (1988) 465

Ortiz, M., Perez, A. and Campos, J., Experimental lifetime for the $B^3\Pi_g$ ($v = O$) level of N_2 150C (1988) 440

Perez, A., see Ortiz, M. 150C (1988) 440

Rao, G.N., see Reddy, M.N. 150C (1988) 457

Reddy, M.N. and Rao, G.N., Optogalvanic spectroscopy and hyperfine structure studies in praseodymium 150C (1988) 457

Sandhu, B.S., see Sekhon, G.S. 150C (1988) 473

Sekhon, G.S., Sandhu, B.S. and Ghumman, B.S., Measurement of double-photon Compton scattering cross-sections of 662 keV gamma rays 150C (1988) 473

Shumovsky, A.S., see Kien, F.L. 150C (1988) 445

Sokolov, I.M., see Lerner, P.B. 150C (1988) 465

ANALYTIC SUBJECT INDEX

PHYSICA B

A15 compounds
– Study of the interatomic forces in the A15 superconducting compounds - Gupta and Gupta 150B (1988) 297
Acoustic wave velocity
– The elastic properties of monoclinic ZrO_2 - Nevitt et al. 150B (1988) 230
Aizu 4 / mF2 / m species
– The ferroelastic transition in some scheelite-type crystals - Ishibashi et al. 150B (1988) 258
Al–Gd system
– Cohesive properties in the — - Colinet et al. 150B (1988) 397
Alkali cyanides
– Unified study of lattice mechanics of — - Singh and Gaur 150B (1988) 385
Al_2O_3
– Vacuum ultraviolet, photoemission and theoretical studies of the electronic structure of — up to 1000 °C - French et al. 150B (1988) 47
$Al_2O_3:Cr^{3+}$
– X-ray diffraction of ruby ($Al_2O_3:Cr^{3+}$) to 175 GPa - Jephcoat et al. 150B (1988) 115
Aluminium oxide
– Theoretical and experimental studies on Cu metallization of Al_2O_3 - Kasowski et al. 150B (1988) 44

Band gap
– Vacuum ultraviolet, photoemission and theoretical studies of the electronic structure of Al_2O_3 up to 1000 °C - French et al. 150B (1988) 47
Band structure
– Total energy calculations for ZrO_2 - Jansen and Gardner 150B (1988) 10
– Electronic structures of three phases of zirconium oxide - Zandiehnadem et al. 150B (1988) 19
– Electronic structure and high T_c superconductivity in transition metal oxides - Freeman and Yu 150B (1988) 50
Beta-alumina
– Phase transformation and characteristics of — - Song et al. 150B (1988) 148
Binary alloys, simple-eutectic
– Construction of liquidus curves of simple-eutectic binary alloys from Miedema theory - Lopez et al. 150B (1988) 369
Binding energy
– The — of hydrogenic impurity in quantum well structures - Chou et al. 150B (1988) 361
Bonding properties (see *Cohesive properties*) 150B (1988) 397

Bonds and valences
– Electronic structure and high T_c superconductivity in transition metal oxides - Freeman and Yu 150B (1988) 50
Brillouin scattering
– The ferroelastic transition in some scheelite-type crystals - Ishibashi et al. 150B (1988) 258
– Light scattering studies of some glasses - Yagi 150B (1988) 265
– Experimental studies of elastic properties of crystals by — - Grimsditch 150B (1988) 271

CAD-generated diagrams
– CAD representation of the systems ZrO_2–MgO–TiO_2 and ZrO_2–MgO–$YO_{1.5}$ - Bateman and Notis 150B (1988) 122
Cation defect structures
– Electronic behavior and cationic defects in cubic transition metal oxides - Mason 150B (1988) 37
CeAg
– Electronic structure of — - Luh and Liu 150B (1988) 324
CeO_{2-x}
– High-temperature charge-density studies of — using X-ray and neutron diffraction techniques - Faber 150B (1988) 241
Ceramic phase diagrams
– Calculation of multicomponent — - Kaufman 150B (1988) 99
Ceramic superconductors
– Valence determination in high T_c oxide superconductors by XANES and Mössbauer spectroscopy - Alp et al. 150B (1988) 74
Ceramics
– Properties of ceramic KNO_3 thin-film memories - Scott et al. 150B (1988) 160
Cerium dioxide
– Thermodynamic and conductivity studies of nonstoichiometric — by coulometric titration: a simultaneous measurement - Park 150B (1988) 80
Charge density
– Total energy calculations for ZrO_2 - Jansen and Gardner 150B (1988) 10
– High-temperature charge-density studies of CeO_{2-x} using X-ray and neutron diffraction techniques - Faber 150B (1988) 241
Charge density distribution
– Comparison of — and electronic bonding in α-SiO_2 and β-Si_3N_4 - Xu and Ching 150B (1988) 32
Charge transfer
– Electronic structure and high T_c superconductivity in transition metal oxides - Freeman and Yu 150B (1988) 50
Chromium thiospinel, $CdIn_{0.3}Cr_{1.7}S_4$
– Experimental investigation on the spin glass dynamics in $CdIn_{0.3}Cr_{1.7}S_4$ from noise measurements - Ocio et al. 150B (1988) 353
Chromocenes (see *Metallocenes*) 150B (1988) 419
Cluster model
– Embedded cluster models for electronic structure and energetics of complex oxides - Ellis and Lam 150B (1988) 25
Cluster variation method
– Calculation of phase diagrams of some oxide systems using the — - Kikuchi and Burton 150B (1988) 132
Cobaltocene (see *Metallocenes*) 150B (1988) 414

Cohesive energy (see *Alkali cyanides*) 150B (1988) 385
Cohesive properties
– — in the Al–Gd system - Colinet et al. 150B (1988) 397
Conduction processes
– Electronic behavior and cationic defects in cubic transition metal oxides - Mason 150B (1988) 37
Conductivity
– Thermodynamic and — studies of nonstoichiometric cerium dioxide by coulometric titration: a simultaneous measurement - Park 150B (1988) 80
– A simple model of the electrical properties of magnetite - Honig and Aragón 150B (1988) 129
Conductivity due to free carriers
– Divacancies production in irradiated n-type silicon - Awadelkarim 150B (1988) 312
Coulometric titration
– Thermodynamic and conductivity studies of nonstoichiometric cerium dioxide by coulometric titration: a simultaneous measurement - Park 150B (1988) 80
Creep
– — behavior of hot-pressed silicon nitride ceramics with rare-earth oxides and alumina additives - Xu et al. 150B (1988) 276
Critical fluctuations
– Stability limits in the monoclinic–tetragonal transformations of zirconia - Garvie and Chan 150B (1988) 203
Crystalline electric field (see *Electric field effect, crystalline*) 150B (1988) 404

Defect properties
– — of divalent metal oxides - Sanyal et al. 150B (1988) 346
Defects
– TEM studies on phases and phase stabilities of zirconia ceramics - Rühle et al. 150B (1988) 86
– High-temperature charge-density studies of CeO_{2-x} using X-ray and neutron diffraction techniques - Faber 150B (1988) 241
Degraded varistors
– Potential barrier degradation at the grain boundary of ZnO-based nonlinear resistors - Kostić et al. 150B (1988) 175
Dielectric response
– Contributions to the second order — of an electron liquid - Bachlechner et al. 150B (1988) 337
Diffraction
– High-temperature charge-density studies of CeO_{2-x} using X-ray and neutron — techniques - Faber 150B (1988) 241
Diffusion
– Zirconia dynamics studied by PAC spectroscopy - Gardner et al. 150B (1988) 223
– Creep behavior of hot-pressed silicon nitride ceramics with rare-earth oxides and alumina additives - Xu et al. 150B (1988) 276
Dipolar polarization (see *Lithium acetate, single crystal*) 150B (1988) 329
Dispersion relation (see *Surface plasmon oscillations*) 150B (1988) 378
Displacement fields
– TEM studies on phases and phase stabilities of zirconia ceramics - Rühle et al. 150B (1988) 86
Domain walls
– Dynamics of — in hydrogen-bonded ferroelectrics - Gordon 150B (1988) 319
Doppler broadening
– Positron trapping in the superconductor $YBa_2Cu_3O_x$ - Smedskjaer et al. 150B (1988) 56

Elastic constants (see *Alkali cyanides*) 150B (1988) 385
Elastic energy
– Molecular dynamics methods to study structural phase transformations in solids - Ray and Rahman 150B (1988) 250
Elastic moduli
– The elastic properties of monoclinic ZrO_2 - Nevitt et al. 150B (1988) 230
Elastic properties
– Experimental studies of — of crystals by Brillouin scattering - Grimsditch 150B (1988) 271
Elasticity
– Phase transitions and — in zirconia - Cohen et al. 150B (1988) 1
Electric field effect, crystalline
– Crystalline electric field effects in the magnetic properties of hexagonal praseodymium compounds - Mrachkov and Leyarovski 150B (1988) 404
Electron density of states
– Electronic structure and high T_c superconductivity in transition metal oxides - Freeman and Yu 150B (1988) 50
Electron gas
– Contributions to the second order dielectric response of an electron liquid - Bachlechner et al. 150B (1988) 337
Electron liquid
– Contributions to the second order dielectric response of an — - Bachlechner et al. 150B (1988) 337
Electron–plasmon coupling (see *Surface plasmon oscillations*) 150B (1988) 378
Electronic structure
– Total energy calculations for ZrO_2 - Jansen and Gardner 150B (1988) 10
– Electronic structures of three phases of zirconium oxide - Zandiehnadem et al. 150B (1988) 19
– Embedded cluster models for — and energetics of complex oxides - Ellis and Lam 150B (1988) 25
– Comparison of charge density distribution and electronic bonding in α-SiO_2 and β-Si_3N_4 - Xu and Ching 150B (1988) 32
– Theoretical and experimental studies on Cu metallization of Al_2O_3 - Kasowski et al. 150B (1988) 44
– Vacuum ultraviolet, photoemission and theoretical studies of the — of Al_2O_3 up to 1000 °C - French et al. 150B (1988) 47
– — and high T_c superconductivity in transition metal oxides - Freeman and Yu 150B (1988) 50
– Applications of ionic models to the high-temperature superconductor La_2CuO_4 - Cohen et al. 150B (1988) 61
– — of CeAg - Luh and Liu 150B (1988) 324
Energy level diagrams
– Embedded cluster models for electronic structure and energetics of complex oxides - Ellis and Lam 150B (1988) 25
Enthalpy of formation, molar (see *Al–Gd system*) 150B (1988) 397
Equation of state
– Phase transitions and elasticity in zirconia - Cohen et al. 150B (1988) 1
Equilibrium calculations
– — in the gas participating multicomponent system - Kuo and Yan 150B (1988) 142
EXAFS
– — study of yttria stabilized cubic zirconia - Veal et al. 150B (1988) 234
Exchange-coupling constants (see *$KCuF_3$*) 150B (1988) 285
Ferricenium cation (see *Metallocenes*) 150B (1988) 414

Ferroelastic transitions
– The ferroelastic transition in some scheelite-type crystals - Ishibashi et al. 150B (1988) 258
Ferroelectrics
– Properties of ceramic KNO_3 thin-film memories - Scott et al. 150B (1988) 160
– Phase transition study of PZT 95/5 ceramics - Wang et al. 150B (1988) 168
– Quantum effects and glasslike behavior in ferroelectric oxides - Samara 150B (1988) 179
Ferroelectrics, hydrogen-bonded
– Dynamics of domain walls in hydrogen-bonded ferroelectrics - Gordon 150B (1988) 319
Ferromagnetic spin-wave excitations
– Modified version of — in the presence of a magnetic field - Nagata et al. 150B (1988) 423
Fluctuation–dissipation theorem (see *Noise measurement*) 150B (1988) 353
Fluctuations
– Quantum effects and glasslike behavior in ferroelectric oxides - Samara 150B (1988) 179
Force constants
– Study of the interatomic forces in the A15 superconducting compounds - Gupta and Gupta 150B (1988) 297

Gas-participating equilibrium
– Equilibrium calculations in the gas participating multicomponent system - Kuo and Yan 150B (1988) 142
Gas-phase equilibria
– Equilibrium calculations in the gas participating multicomponent system - Kuo and Yan 150B (1988) 142
Glass-like behavior
– Quantum effects and glasslike behavior in ferroelectric oxides - Samara 150B (1988) 179
Glass transition
– Light scattering studies of some glasses - Yagi 150B (1988) 265
Grain boundaries
– Quasicrystals at — - Rivier and Lawrence 150B (1988) 190
Grain-boundary sliding
– Creep behavior of hot-pressed silicon nitride ceramics with rare-earth oxides and alumina additives - Xu et al. 150B (1988) 276

Haupt effect (see *Lithium acetate, single crystal*) 150B (1988) 329
High pressure Raman scattering
– The ferroelastic transition in some scheelite-type crystals - Ishibashi et al. 150B (1988) 258
Hopping conductivity (see *Vacancy production*) 150B (1988) 312
Hydrogen-bonded solids (see *Ferroelectrics, hydrogen-bonded*) 150B (1988) 319
Hydrogenic impurity (see *Quantum well structures*) 150B (1988) 361

Icosahedral
– Quasicrystals at grain boundaries - Rivier and Lawrence 150B (1988) 190
Interatomic forces (see *Force constants*) 150B (1988) 297
Intermetallic compounds (see *CeAg*) 150B (1988) 324

Jahn–Teller distortion
– Effect of — on the exchange interactions in $KCuF_3$. Two model studies - Fuchikami et al. 150B (1988) 285

Jahn–Teller interaction
– Theory of — in metallocenes. I. Cobaltocene and ferricenium cation - Rai 150B (1988) 414
– Theory of — in metallocenes. II. Chromocene - Rai 150B (1988) 419

$KCuF_3$
– Effect of Jahn–Teller distortion on the exchange interactions in $KCuF_3$. Two model studies - Fuchikami et al. 150B (1988) 285
KH_2PO_4 (see *Ferroelectrics, hydrogen-bonded*) 150B (1988) 319
KNO_3
– Properties of ceramic — thin-film memories - Scott et al. 150B (1988) 160

Lattice dynamics (see *A15 compounds*) 150B (1988) 297
Lattice model (of ferroelastic transition)
– The ferroelastic transition in some scheelite-type crystals - Ishibashi et al. 150B (1988) 258
Lattice stability
– Calculation of multicomponent ceramic phase diagrams - Kaufman 150B (1988) 99
Lattice static properties (see *Alkali cyanides*) 150B (1988) 385
Liquidus curves (see *Binary alloys, simple-eutectic*) 150B (1988) 369
Lithium acetate, single crystal
– Dipolar polarization in a single crystal of lithium acetate measured by NMR dispersion spectroscopy - Crits et al. 150B (1988) 329

Magnetic fluctuations (see *Chromium thiospinel, $CdIn_{0.3}Cr_{1.7}S_4$*) 150B (1988) 353
Magnetic susceptibility (see *Praseodymium compounds, hexagonal*) 150B (1988) 404
Magnetite
– A simple model of the electrical properties of — - Honig and Aragón 150B (1988) 129
Magnetization, high field (see *Praseodymium compounds, hexagonal*) 150B (1988) 404
Magnetization (see *Ferromagnetic spin-wave excitations*) 150B (1988) 423
Mean-field theory
– Properties of ceramic KNO_3 thin-film memories - Scott et al. 150B (1988) 160
Metal oxides, divalent
– Defect properties of divalent metal oxides - Sanyal et al. 150B (1988) 346
Metallization
– Theoretical and experimental studies on Cu — of Al_2O_3 - Kasowski et al. 150B (1988) 44
Metallocenes
– Theory of Jahn–Teller interaction in metallocenes. I. Cobaltocene and ferricenium cation - Rai 150B (1988) 414
– Theory of Jahn–Teller interaction in metallocenes. II. Chromocene - Rai 150B (1988) 419
Microstructure
– TEM studies on phases and phase stabilities of zirconia ceramics - Rühle et al. 150B (1988) 86
– Phase transformation and characteristics of beta-alumina - Song et al. 150B (1988) 148
Miedema theory
– Construction of liquidus curves of simple-eutectic binary alloys from — - Lopez et al. 150B (1988) 369
Mineral / ceramic systems
– Calculation of phase diagrams of some oxide systems using the cluster variation method - Kikuchi and Burton 150B (1988) 132
Mixed valence (see *CeAg*) 150B (1988) 324

Molecular dynamics
– — methods to study structural phase transformations in solids - Ray and Rahman 150B (1988) 250
Monoclinic ZrO_2
– The elastic properties of — - Nevitt et al. 150B (1988) 230

Neutron diffraction techniques
– High-temperature charge-density studies of CeO_{2-x} using X-ray and — - Faber 150B (1988) 241
NMR dispersion spectroscopy
– Dipolar polarization in a single crystal of lithium acetate measured by — - Crits et al. 150B (1988) 329
Noise measurement
– Experimental investigation on the spin glass dynamics in $CdIn_{0.3}Cr_{1.7}S_4$ from noise measurements - Ocio et al. 150B (1988) 353
Nonequilibrium processes
– Molecular dynamics methods to study structural phase transformations in solids - Ray and Rahman 150B (1988) 250
Nonlinear resistors
– Potential barrier degradation at the grain boundary of ZnO-based — - Kostić et al. 150B (1988) 175
Nonstoichiometry
– High-temperature charge-density studies of CeO_{2-x} using X-ray and neutron diffraction techniques - Faber 150B (1988) 241
Nucleation
– Stability limits in the monoclinic–tetragonal transformations of zirconia - Garvie and Chan 150B (1988) 203

Oxygen stoichiometry
– Valence determination in high T_c oxide superconductors by XANES and Mössbauer spectroscopy - Alp et al. 150B (1988) 74

PAC spectroscopy
– Zirconia dynamics studied by — - Gardner et al. 150B (1988) 223
Perovskites
– Quantum effects and glasslike behavior in ferroelectric oxides - Samara 150B (1988) 179
Phase diagram calculations
– Calculation of multicomponent ceramic phase diagrams - Kaufman 150B (1988) 99
Phase diagrams
– Calculation of — of some oxide systems using the cluster variation method - Kikuchi and Burton 150B (1988) 132
Phase equilibria
– CAD representation of the systems ZrO_2–MgO–TiO_2 and ZrO_2–MgO–$YO_{1.5}$ - Bateman and Notis 150B (1988) 122
Phase equilibrium
– Calculation of multicomponent ceramic phase diagrams - Kaufman 150B (1988) 99
Phase stability
– TEM studies on phases and phase stabilities of zirconia ceramics - Rühle et al. 150B (1988) 86
– Stability limits in the monoclinic–tetragonal transformations of zirconia - Garvie and Chan 150B (1988) 203
– The polymorphic transformations of zirconia - Chan 150B (1988) 212

Phase transformation
– — and characteristics of beta-alumina - Song et al. 150B (1988) 148
Phase transitions
– — and elasticity in zirconia - Cohen et al. 150B (1988) 1
– Phase transition study of PZT 95/5 ceramics - Wang et al. 150B (1988) 168
– Quantum effects and glasslike behavior in ferroelectric oxides - Samara 150B (1988) 179
– Molecular dynamics methods to study structural phase transformations in solids - Ray and Rahman 150B (1988) 250
– Experimental studies of elastic properties of crystals by Brillouin scattering - Grimsditch 150B (1988) 271
Phonon dispersion curves (see *A15 compounds*) 150B (1988) 297
Phonon dispersion (see *Alkali cyanides*) 150B (1988) 385
Phonon modes
– Applications of ionic models to the high-temperature superconductor La_2CuO_4 - Cohen et al. 150B (1988) 61
Phonon spectra
– Experimental studies of elastic properties of crystals by Brillouin scattering - Grimsditch 150B (1988) 271
Photoelectric properties (see *Alkali cyanides*) 150B (1988) 385
PIB model
– Applications of ionic models to the high-temperature superconductor La_2CuO_4 - Cohen et al. 150B (1988) 61
Plasmon (see *Surface plasmon oscillations*) 150B (1988) 378
Polarization
– Phase transition study of PZT 95/5 ceramics - Wang et al. 150B (1988) 168
Polaron conduction
– Electronic behavior and cationic defects in cubic transition metal oxides - Mason 150B (1988) 37
Positron annihilation
– Positron trapping in the superconductor $YBa_2Cu_3O_x$ - Smedskjaer et al. 150B (1988) 56
Positron trapping
– — in the superconductor $YBa_2Cu_3O_x$ - Smedskjaer et al. 150B (1988) 56
Potential barrier degradation
– — at the grain boundary of ZnO-based nonlinear resistors - Kostić et al. 150B (1988) 175
Praseodymium compounds, hexagonal
– Crystalline electric field effects in the magnetic properties of hexagonal praseodymium compounds - Mrachkov and Leyarovski 150B (1988) 404

Quantum effects
– — and glasslike behavior in ferroelectric oxides - Samara 150B (1988) 179
Quantum well structures
– The binding energy of hydrogenic impurity in — - Chou et al. 150B (1988) 361
Quasicrystals
– — at grain boundaries - Rivier and Lawrence 150B (1988) 190

Raman scattering
– Light scattering studies of some glasses - Yagi 150B (1988) 265
Raman spectroscopy
– Properties of ceramic KNO_3 thin-film memories - Scott et al. 150B (1988) 160

Relaxation
– Zirconia dynamics studied by PAC spectroscopy - Gardner et al. 150B (1988) 223
Scheelite-type crystals
– The ferroelastic transition in some — - Ishibashi et al. 150B (1988) 258
Schottky defect formation energy
– Defect properties of divalent metal oxides - Sanyal et al. 150B (1988) 346
Seebeck coefficient
– A simple model of the electrical properties of magnetite - Honig and Aragón 150B (1988) 129
Silicon, n-type
– Divacancies production in irradiated n-type silicon - Awadelkarim 150B (1988) 312
Silicon nitrides
– Creep behavior of hot-pressed silicon nitride ceramics with rare-earth oxides and alumina additives - Xu et al. 150B (1988) 276
Simulations
– Molecular dynamics methods to study structural phase transformations in solids - Ray and Rahman 150B (1988) 250
SiO_2
– Comparison of charge density distribution and electronic bonding in α- — and β-Si_3N_4 - Xu and Ching 150B (1988) 32
Soft mode
– Stability limits in the monoclinic–tetragonal transformations of zirconia - Garvie and Chan 150B (1988) 203
– The polymorphic transformations of zirconia - Chan 150B (1988) 212
Sound velocity
– Experimental studies of elastic properties of crystals by Brillouin scattering - Grimsditch 150B (1988) 271
Spin glass dynamics (see *Chromium thiospinel, $CdIn_{0.3}Cr_{1.7}S_4$*) 150B (1988) 353
Spin-wave excitations
– Modified version of ferromagnetic — in the presence of a magnetic field - Nagata et al. 150B (1988) 423
Spinels
– Electronic behavior and cationic defects in cubic transition metal oxides - Mason 150B (1988) 37
Spinodal decomposition
– Stability limits in the monoclinic–tetragonal transformations of zirconia - Garvie and Chan 150B (1988) 203
Superconductivity
– Electronic structure and high T_c — in transition metal oxides - Freeman and Yu 150B (1988) 50
Superconductors
– Applications of ionic models to the high-temperature superconductor La_2CuO_4 - Cohen et al. 150B (1988) 61
Surface plasmon oscillations
– Surface plasmon dispersion relation in the X-ray emission spectra of a semi-infinite rectangular metal bounded by a plane - Harsh and Agarwal 150B (1988) 378
Susceptibility, out-of-phase
– Experimental investigation on the spin glass dynamics in $CdIn_{0.3}Cr_{1.7}S_4$ from noise measurements - Ocio et al. 150B (1988) 353
Symmetry relations
– The polymorphic transformations of zirconia - Chan 150B (1988) 212

Thermodynamics
– Stability limits in the monoclinic–tetragonal transformations of zirconia - Garvie and Chan 150B (1988) 203
– The polymorphic transformations of zirconia - Chan 150B (1988) 212
Thin-film memories
– Properties of ceramic KNO_3 — - Scott et al. 150B (1988) 160
Total energy
– Phase transitions and elasticity in zirconia - Cohen et al. 150B (1988) 1
– — calculations for ZrO_2 - Jansen and Gardner 150B (1988) 10
Transport properties
– A simple model of the electrical properties of magnetite - Honig and Aragón 150B (1988) 129
Twins
– TEM studies on phases and phase stabilities of zirconia ceramics - Rühle et al. 150B (1988) 86

Ultrahigh pressure
– X-ray diffraction of ruby ($Al_2O_3:Cr^{3+}$) to 175 GPa - Jephcoat et al. 150B (1988) 115

Vacancies
– EXAFS study of yttria stabilized cubic zirconia - Veal et al. 150B (1988) 234
Vacancy production
– Divacancies production in irradiated n-type silicon - Awadelkarim 150B (1988) 312
Valence determination
– — in high T_c oxide superconductors by XANES and Mössbauer spectroscopy - Alp et al. 150B (1988) 74
Vibronic eigenvalue equation (see *Jahn–Teller interaction*) 150B (1988) 414
Vibronic eigenvalue equation (see *Jahn–Teller interaction*) 150B (1988) 419

X-ray diffraction
– — of ruby ($Al_2O_3:Cr^{3+}$) to 175 GPa - Jephcoat et al. 150B (1988) 115
X-ray diffraction techniques
– High-temperature charge-density studies of CeO_{2-x} using X-ray and neutron diffraction techniques - Faber 150B (1988) 241
X-ray emission spectra
– Surface plasmon dispersion relation in the — of a semi-infinite rectangular metal bounded by a plane - Harsh and Agarwal 150B (1988) 378

Zirconia
– Phase transitions and elasticity in — - Cohen et al. 150B (1988) 1
– Total energy calculations for ZrO_2 - Jansen and Gardner 150B (1988) 10
– Electronic structures of three phases of zirconium oxide - Zandiehnadem et al. 150B (1988) 19
– TEM studies on phases and phase stabilities of — ceramics - Rühle et al. 150B (1988) 86
– — dynamics studied by PAC spectroscopy - Gardner et al. 150B (1988) 223
– EXAFS study of yttria stabilized cubic — - Veal et al. 150B (1988) 234
Zirconia phase transformation
– Stability limits in the monoclinic–tetragonal transformations of zirconia - Garvie and Chan 150B (1988) 203
Zirconia phase transformations
– The polymorphic transformations of zirconia - Chan 150B (1988) 212

ZrO_2
– Phase transitions and elasticity in zirconia - Cohen et al. 150B (1988) 1
ZrO_2 ternary systems
– CAD representation of the systems ZrO_2–MgO–TiO_2 and ZrO_2–MgO–$YO_{1.5}$ - Bateman and Notis 150B (1988) 122

PHYSICA C

Anti-bunching
– Influence of initial conditions on squeezing and — in the Jaynes–Cummings model - Aravind and Hu 150C (1988) 427

Binary gas mixture (see *Sound propagation*) 150C (1988) 465

Cavity radiation field
– Influence of initial conditions on squeezing and anti-bunching in the Jaynes–Cummings model - Aravind and Hu 150C (1988) 427
– Light squeezing in the two-atom one-mode model with multi-phonon transitions - Kien et al. 150C (1988) 445
Compton scattering, double photon
– Measurement of double-photon Compton scattering cross-sections of 662 keV gamma rays - Sekhon et al. 150C (1988) 473

Disparate-mass gas mixture (see *Sound propagation*) 150C (1988) 465

Electronic states of N_2
– Experimental lifetime for the $B^3\Pi_g$ ($v = O$) level of N_2 - Ortiz et al. 150C (1988) 440

Hyperfine structure (see *Praseodymium*) 150C (1988) 457

Lifetime of B $^3\Pi_g$ level of N_2
– Experimental lifetime for the $B^3\Pi_g$ ($v = O$) level of N_2 - Ortiz et al. 150C (1988) 440
Light squeezing (see *Squeezing*) 150C (1988) 445

Nitrogen (see *Lifetime of B $^3\Pi_g$ level of N_2*) 150C (1988) 440

Optogalvanic spectroscopy
– — and hyperfine structure studies in praseodymium - Reddy and Rao 150C (1988) 457

Praseodymium
– Optogalvanic spectroscopy and hyperfine structure studies in — - Reddy and Rao 150C (1988) 457

Sound propagation
– — in gas mixtures - Lerner and Sokolov 150C (1988) 465
Squeezing
– Influence of initial conditions on — and anti-bunching in the Jaynes–Cummings model - Aravind and Hu 150C (1988) 427
– Light — in the two-atom one-mode model with multi-phonon transitions - Kien et al. 150C (1988) 445